

PF-0531 USN

<110> BANDMAN, Olga
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<120> Cell Cycle Regulation Proteins

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<150> PCT/US99/12906

<151> 1999-06-08

<150> 60/088,695

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Pro	Glu	Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser
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Ser	Pro	Pro	Arg	Pro	Asn	His	Tyr	Leu	Leu	Ile	Asp	Thr	Gln	Gly
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Val	Pro	Tyr	Thr	Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro
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Gly	Ala	Ser	Gly	Ala	Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro
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Val	Cys	Ser	Arg	Val	Phe	Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His
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Ser	Ile	Thr	His	Ser	Glu	Val	Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys
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Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser	His	Leu	Ala	Arg	His	His	Ser
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Ile	His	Leu	Ala	Gly	Gly	Gly	Arg	Pro	His	Gly	Cys	Pro	Leu	Cys
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PF-0531 USN

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Arg	Gly	Val	Val	Leu	Phe	Phe	Ile	Gly	Val	Phe	Leu	Ala	Leu	Val
				35					40					45
Leu	Asn	Leu	Leu	Gln	Ile	Gln	Arg	Asn	Val	Thr	Leu	Phe	Pro	Pro
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Asp	Val	Ile	Ala	Ser	Ile	Phe	Ser	Ser	Ala	Trp	Trp	Val	Pro	Pro
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Cys	Cys	Gly	Thr	Ala	Ser	Ala	Val	Ile	Gly	Leu	Leu	Tyr	Pro	Cys
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Ile	Asp	Arg	His	Leu	Gly	Glu	Pro	His	Lys	Phe	Lys	Arg	Glu	Trp
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Ser	Ser	Val	Met	Arg	Cys	Val	Ala	Val	Phe	Val	Gly	Ile	Asn	His
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Ala	Ser	Ala	Lys	Val	Asp	Phe	Asp	Asn	Asn	Ile	Gln	Leu	Ser	Leu
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Thr	Leu	Ala	Ala	Leu	Ser	Ile	Gly	Leu	Trp	Trp	Thr	Phe	Asp	Arg
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Ser	Arg	Ser	Gly	Phe	Gly	Leu	Gly	Val	Gly	Ile	Ala	Phe	Leu	Ala
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Thr	Val	Val	Thr	Gln	Leu	Leu	Val	Tyr	Asn	Gly	Val	Tyr	Gln	Tyr
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Thr	Ser	Pro	Asp	Phe	Leu	Tyr	Val	Arg	Ser	Trp	Leu	Pro	Cys	Ile
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Phe	Phe	Ala	Gly	Gly	Ile	Thr	Met	Gly	Asn	Ile	Gly	Arg	Gln	Leu
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PF-0531 USN

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Ala	Ala	Val	Ala	Gln	Ala	Pro	Pro	Ala	Val	Ala	Ser	Ser	Ser	Leu
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Phe	Asp	Leu	Ser	Val	Leu	Lys	Leu	His	His	Ser	Leu	Gln	Gln	Ser
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Glu	Pro	Asp	Leu	Arg	His	Leu	Val	Leu	Val	Val	Asn	Thr	Leu	Arg
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Arg	Ile	Gln	Ala	Ser	Met	Ala	Pro	Ala	Ala	Ala	Leu	Pro	Pro	Val
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Pro	Ser	Pro	Pro	Ala	Ala	Pro	Ser	Val	Ala	Asp	Asn	Leu	Leu	Ala
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Ser	Ser	Asp	Ala	Ala	Leu	Ser	Ala	Ser	Met	Ala	Ser	Leu	Leu	Glu
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Asp	Leu	Ser	His	Ile	Glu	Gly	Leu	Ser	Gln	Ala	Pro	Gln	Pro	Leu
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Ala	Asp	Glu	Gly	Pro	Pro	Gly	Arg	Ser	Ile	Gly	Gly	Ala	Ala	Pro
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Ser	Leu	Gly	Ala	Leu	Asp	Leu	Leu	Gly	Pro	Ala	Thr	Gly	Cys	Leu
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Leu	Asp	Asp	Gly	Leu	Glu	Gly	Leu	Phe	Glu	Asp	Ile	Asp	Thr	Ser
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Pro	Gly	Pro	Glu	Asp	Gly	Pro	Gly	Lys	Glu	Glu	Ala	Pro	Glu	Leu
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Asp	Glu	Ala	Glu	Leu	Asp	Tyr	Leu	Met	Asp	Val	Leu	Val	Gly	Thr
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<223> Incyte ID No: 1596581

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				20					25					30

PF-0531 USN

Glu	Leu	Asp	Gln	Tyr	Ala	Pro	Asp	Val	Ala	Glu	Leu	Ile	Arg	Thr	
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Pro	Met	Glu	Met	Arg	Tyr	Ile	Pro	Leu	Lys	Val	Ala	Leu	Phe	Tyr	
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Leu	Leu	Asn	Pro	Tyr	Thr	Ile	Leu	Ser	Cys	Val	Ala	Lys	Ser	Thr	
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Cys	Ala	Ile	Asn	Asn	Thr	Leu	Ile	Ala	Phe	Phe	Ile	Leu	Thr	Thr	
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Ile	Lys	Gly	Ser	Ala	Phe	Leu	Ser	Ala	Ile	Phe	Leu	Ala	Leu	Ala	
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Thr	Tyr	Gln	Ser	Leu	Tyr	Pro	Leu	Thr	Leu	Phe	Val	Pro	Gly	Leu	
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Leu	Tyr	Leu	Leu	Gln	Arg	Gln	Tyr	Ile	Pro	Val	Lys	Met	Lys	Ser	
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Lys	Ala	Phe	Trp	Ile	Phe	Ser	Trp	Glu	Tyr	Ala	Met	Met	Tyr	Val	
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Gly	Ser	Leu	Val	Val	Ile	Ile	Cys	Leu	Ser	Phe	Phe	Leu	Leu	Ser	
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Ser	Trp	Asp	Phe	Ile	Pro	Ala	Val	Tyr	Gly	Phe	Ile	Leu	Ser	Val	
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Pro	Asp	Leu	Thr	Pro	Asn	Ile	Gly	Leu	Phe	Trp	Tyr	Phe	Phe	Ala	
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Glu	Met	Phe	Glu	His	Phe	Ser	Leu	Phe	Phe	Val	Cys	Val	Phe	Gln	
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Ile	Asn	Val	Phe	Phe	Tyr	Thr	Ile	Pro	Leu	Ala	Ile	Lys	Leu	Lys	
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Glu	His	Pro	Ile	Phe	Phe	Met	Phe	Ile	Gln	Ile	Ala	Val	Ile	Ala	
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Ile	Phe	Lys	Ser	Tyr	Pro	Thr	Val	Gly	Asp	Val	Ala	Leu	Tyr	Met	
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Ala	Phe	Phe	Pro	Val	Trp	Asn	His	Leu	Tyr	Arg	Phe	Leu	Arg	Asn	
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Ile	Phe	Val	Leu	Thr	Cys	Ile	Ile	Ile	Val	Cys	Ser	Leu	Leu	Phe	
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Pro	Val	Leu	Trp	His	Leu	Trp	Ile	Tyr	Ala	Gly	Ser	Ala	Asn	Ser	
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Asn	Phe	Phe	Tyr	Ala	Ile	Thr	Leu	Thr	Phe	Asn	Val	Gly	Gln	Ile	
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Leu	Leu	Ile	Ser	Asp	Tyr	Phe	Tyr	Ala	Phe	Leu	Arg	Arg	Glu	Tyr	
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Tyr	Leu	Thr	His	Gly	Leu	Tyr	Leu	Thr	Ala	Lys	Asp	Gly	Thr	Glu	
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PF-0531 USN

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Arg Lys Leu Thr Phe Glu Gln Gln Arg Ser Asp Leu Trp Glu Arg			
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Leu Tyr Val Glu Ala Lys Asp Gln Asn Gly Lys Gln Gly Thr Asp			
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Gly Lys Lys Lys Gly Gly Arg Gly Ser His Arg Ala Lys Asn Lys			
	470	475	480
Ser Lys Glu Thr Phe Leu Gly Ser Val Lys Glu Thr Phe Asp Ala			
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Met Lys Asn Ser Thr Lys Glu Phe Val Arg His His Lys Glu Lys			
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Ile Lys Gln Ala Lys Glu Ala Val Lys Glu Asn Leu Lys Lys Phe			
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Ser Asp Ser Val Lys Ser Thr Phe Arg His Phe Lys Asp Thr Thr			
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Lys Asn Ile Phe Asp Glu Lys Gly Asn Lys Arg Phe Gly Ala Thr			
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Lys Glu Ala Ala Glu Lys Pro Arg Thr Val Phe Ser Asp Tyr Leu			
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His Pro Gln Tyr Lys Ala Pro Thr Glu Asn His His Asn Arg Gly			
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Lys Glu Phe Arg Lys Asn Thr Asn Ser Lys Lys Cys Ser Pro Gly			
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His Asp Cys Arg Glu Asn Ser His Ser Phe Arg Lys Ala Cys Ser			
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Thr Val Val Asn Pro Ile Arg Met Asp Glu Phe Arg Gln Ile Ile			
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Gln Arg Tyr Met Leu Lys Glu Leu Asp Thr Phe Cys His Trp Asn			
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Glu Leu Asp Gln Phe Ile Asn Lys Phe Phe Leu Asn Gly Val Phe			
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Ile His Asp Gln Lys Leu Phe Thr Asp Phe Val Asn Asp Val Lys			
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Asp Tyr Leu Arg Asn Met Lys Glu Tyr Glu Val Asp Asn Asp Gly			
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Val Phe Glu Lys Leu Asp Glu Tyr Ile Tyr Arg His Phe Phe Gly			
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PF-0531 USN

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<211> 1631

<212> DNA

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ttatgataac tgatgcactc actgctattg ccctgtattt tgcaatccag gacttcaata 300
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PF-0531 USN

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gacccccacc ttgtggctct gcacaccaag gagccccctc ccagacagga aggagaagag 1560
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<210> 10

<211> 3006

<212> DNA

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<221> misc_feature

<223> Incyte ID No: 1853196

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ttggactgtc atcagctatg aggggtcaga tatagaaatg ttgaattctg tgacccccac 180
tgacagctgt gagcccgccc cagaatgttc atcttttagag caagaggagc ttcaagcatt 240
gcagatagag caaggagaaa gcagccaaaa tggcacagtg cttatggaag aaactgctta 300
tccagctttg gaggaaacca gctcaacaat tgaggcagag gaacaaaaga taccgaaga 360
cagtatctat attggaactg ccagtgatga ttctgatatt gttacccttg agccacctaa 420
gttagaagaa attggaatc aagaagttgt cattgttgaa gaagcacaga gttcagaaga 480
ctttaacatg ggctcttctt ctagcagcca gtatactttc tgtcagccag aaactgtatt 540
ttcatctcag cctagtgatg atgaatcaag tagtgatgaa accagtaatc agcccagtc 600
tgcctttaga cgacgccgtg ctaggaagaa gaccgtttct gcttcagaat ctgaagaccg 660
gctagtgtgct gaacaagaaa ctgaaccttc taaggagttg agtaaacgtc agttcagtag 720
tgggtctcaat aagtgtgtta tacttgcttt ggtgattgca atcagcatgg gatttgcca 780
tttctatggc acaattcaga ttcagaagcg tcaacagtta gtcagaaaaga tacatgaaga 840
tgaattgaat gatatgaagg attatctttc ccagtgtcaa caggaaacaag aatcttttat 900
agattataag tcattgaaag aaaatcttgc aagggtgttg acacttactg aagcagagaa 960
gatgtccttt gaaactcaga aaacgaacct tgctacagaa aatcagtatt taagagtatc 1020
cctggagaga gaagaaaaag cttatcctc attacgaa gagttaaaca aactaagaga 1080
acagattaga atattggaag ataaaggac aagtactgaa ttagttaaag aaaactagaa 1140
acttaagcag catttggaag aggaaaagca gaaaaaacac agctttctta gtcaaaggga 1200
gactctgttg acagaagcaa agatgctaaa gagagaactg gagagagaac gactagtaac 1260
```

PF-0531 USN

```
tacggccttta agggggggaac tccagcagtt aagtggtagt cagttacatg gcaagtcaga 1320
ttctcccaat gtatatactg aaaaaaagga aatagcaatc ttacgggaaa gactcactga 1380
gctggaacgg aagctaacct tcgaacagca gcgttctgat ttgtgggaaa gattgtatgt 1440
tgaggcaaaa gatcaaaatg gaaaacaagg aacagatgga aaaaagaaaag ggggcagagg 1500
aagccacagg gctaaaaata agtcaaagga aacatttttg ggttcagtta aggaaacatt 1560
tgatgccatg aagaattcta ccaaggagtt tgtaaggcat cataaagaga aaattaagca 1620
ggctaaagaa gctgtgaagg aaaatctgaa aaaattctca gattcagtta aatccacttt 1680
cagacacttt aaagatacca ccaagaatat ctttgatgaa aagggttaata aaagatttgg 1740
tgctacaaaa gaagcagctg aaaaaccaag aacagttttt agtgactatt tacatccaca 1800
gtataaggca cctacagaaa accatcataa tagaggccct actatgcaa atgatggaag 1860
gaaagaaaag ccagttcact ttaaagaatt cagaaaaaat acaaattcaa agaaatgcag 1920
tcctgggcat gattgtagag aaaattctca ttctttcaga aaggcttggt ctggtgtatt 1980
tgattgtgct caacaagagt ccatgagcct ttttaacaca gtggtgaatc ctataaggat 2040
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ctggaacgaa cttgatcagt tcatcaataa gtttttctta aacggtgtct ttatacatga 2160
tcagaagctc ttcactgact ttgttaatga tgtaaagat tatcttagaa acatgaagga 2220
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gtaagggttac cgtttctaag agttgtgctt tatggccact gagagaattc agaataaatt 2460
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gtgaaattat tttcctttta tcttttatgt atttattcac ttttggaagc taggaatgag 2700
caacacaaat tttactctga agtcagaaga gctcatatat aataattcta atgtcccacc 2760
tattttcact tgtccattcc atgtaccagc ttagttatga tacttagtca cataattatc 2820
tttgataaag gtagaggcac aaagaggcaa actaagcaag tcaaattcta atgtgtgtac 2880
ttcataataa ttttttatcc attttcatct ttatattctg taacatgaaa cttacctaatt 2940
cttcaaattgt tagcttcatt ttttaccttt gaaatactta atctttctga ataaatataa 3000
tgtgta 3006
```

<210> 11

<211> 684

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 108390F1

<220>

<221> unsure

<222> 269, 285, 295, 312, 366, 375, 378, 397, 406, 428, 495, 501, 503, 586, 592, 610, 613, 643

<223> a, t, c, g, or other

<400> 11

```
cagtatatac attggggagaa tctgacttgc catgtaactg actaccactt aactgctgga 60
gttccccctt taaagccgta gttactagtc gttctctctc cagttctctc ttttagcatct 120
ttgcttctgt caacagagtc tccctttgac taagaaagct gtgttttttc tgcttttctt 180
cttccaaatg ctgcttaagt ttctgatttt cttaaactaa ttcagtactt gtccctttat 240
cttccaatat tctaactctgt tctcttagnt tgtttaactc ttccngtaat gaggntaagg 300
ctttttcttc cntctccagg gatactctta aatactgatt ttctgtagca aggttcgtht 360
ctgagnttca aaggncanct tctctgcttc agtaagngtc caacancttg caagatttct 420
```

PF-0531 USN

```
ttcaatgnct tataatctat aaaagttctt gttcccgttg acacggggaa ggtaatcctc 480
atatcatcaa ttcantttca ngnatctttc tgactaactg ttgacgggtc tgaatctgaa 540
tgtgccatag gaatggccaa atcccatgct gattgcaatc accaangcaa gnataacaca 600
cttattgggn ccnctactga actgacgggt actcaactcc ttnggagggt cagttcttgt 660
tcagcaacta gccggtcttc agat 684
```

<210> 12
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1211009R1

```
<400> 12
aagaattcta ccaaggagtt tgtaaggcat cataaagaga aaattaagca ggctaaagaa 60
gctgtgaagg aaaatctgaa aaaattctca gattcagtta aatccacttt cagacacttt 120
aaagatacca ccaagaatat ctttgatgaa aagggttaata aaagatttgg tgctacaaaa 180
gaagcagctg aaaaaccaag aacagttttt agtgactatt tacatccaca gtataaggca 240
cctacagaaa accatcataa tagaggccct actatgcaaa atgatggaag gaaagaaaag 300
ccagttcact ttaaagaatt cagaaaaaat acaaattcaa agaaatgcag tcctgggcat 360
gattgtagag aaaattctca ttctttcaga aaggccttgt ctggtgtatt tgattg 416
```

<210> 13
<211> 609
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1211009T1

<220>
<221> unsure
<222> 25, 152, 166, 169, 173-174, 180, 183, 186, 192-193, 198, 200, 205,
220, 230, 233, 236, 243, 246, 251, 285, 307, 309-310, 317, 319, 329,
344-345, 377, 475, 485, 556, 573, 583, 594
<223> a, t, c, g, or other

```
<400> 13
aagaacatta tatttattca gaaanattaa gtatttcaaa ggtaaaaaat gaagctaaca 60
tttgaagatt aggtaagttt catgttacag aatataaaga tgaaaatgga taaaaaatta 120
ttatgaagta cacacattag aatttgactt gnttagtttg cctctntgng ccnntacctn 180
tancanaggt anntatgngn ctaantatca taactaagcn ggtacatggn atnganaagt 240
ganaanaggt nggacattag aaattattat atatgagctc ttctnacttc agagtaaaaat 300
ttgtgtngnn cattccnanc ttccaaaant gaataaatac atannagatt aaaggaaaat 360
aatttcactt aagggtgntct tttcatataa actataatga gaagaaacaa acttggccaa 420
agtaggattt tatatattct taactgattt ttaagataga aaattaaacc atttntctca 480
gtcanagtga tcacgttata atgaaatgtt ccatttgtaa cagctaataa tttttagact 540
ccatctttca atttantctg aattctctca gtngccataa agncaactct tagnaacggt 600
accttcaag 609
```

<210> 14

PF-0531 USN

<211> 189

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1352052H1

<400> 14

```
cttcacatcc gtcctcctgt ctcagggctg gcagggggag cctggaatta cccctagtg 60
atggaatgac aggggtctggt ggggactgaa ttccctggcc ctgggggtcat agcttgggct 120
gttccttctc tgatacggga agagacccca atcagatttt tcaaattaa gccagtcctg 180
ggaaatctc                                     189
```

<210> 15

<211> 473

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1391767F1

<220>

<221> unsure

<222> 34, 59-60, 134, 168, 311, 314, 344, 347, 354, 364, 391, 393, 401, 407, 413, 416, 426, 445-447, 453-454, 459, 471

<223> a, t, c, g, or other

<400> 15

```
gaaaaaaagg aaatagcaat cttacgggaa agantcactg agctggaacg gaagctaann 60
ttcgaacagc agcgttctga tttgtgggaa agattgtatg ttgaggcaaa agatcaaaat 120
ggaaaacaag gaanagatgg aaaaaagaaa gggggcagag gaagccanag ggctaaaaat 180
aagtcaaagg aaacattttt gggttcagtt aaggaaacat ttgatgccat gaagaattct 240
accaaggagt ttgtaaggca tcataaagag aaaattaagc aggctaaaga agctgtgaag 300
gaaaatctga naanattctc agattcagtt aaatccactt tccnggnact ttanagtacc 360
cccnagggta tctttgatga aaagggtaat nanagtttgg ngctacnaaa gangcnagct 420
gaaaanccag gacagttttt agggnnntat tgnnatccnc agtataaggc ncc 473
```

<210> 16

<211> 529

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1477338F1

<220>

<221> unsure

<222> 119, 501

<223> a, t, c, g, or other

<400> 16

PF-0531 USN

```
ccccagatgt ggccgaactc atccggaccc ctatggaaat gcgttacatc cctttgaaag 60
tggccctggt ctatctctta aatccttaca cgattttgtc ttgtgttgcc aagtctacnt 120
gtgccatcaa caacaccctc attgctttct tcattttgac tacgataaaa ggcagtgcct 180
tcctcagtgc tatttttctt gccttagcga cataccagtc tctgtacca ctcaccttgt 240
ttgtcccagg actcctctat ctcctccagc ggcagtacat acctgtgaaa atgaagagca 300
aagccttctg gatcttttct tgggagtatg ccatgatgta tgtgggaagc ctagtggtaa 360
tcatttgctt ctccttcttc cttctcagct cttgggattt catccccgca gtctatggct 420
ttatactttc tgttccagat ctcaactcaa acattgggtc tttctggtac ttctttgcag 480
agatgtttga gcacttcagc ntcttctttg tatgtgtgtt cagatcaac 529
```

<210> 17
<211> 581
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1520634F1

<220>
<221> unsure
<222> 372, 374, 445
<223> a, t, c, g, or other

```
<400> 17
gccatcccc tgccctcagc ctctggcatt ttcctccgtt gagaccatgg agggccctcc 60
ccgtcggact tgccgctccc cagaacctgg accttctctc tccatcggat ctccccaggc 120
ttcatctcct ccaaggccca accactacct gcttattgac actcaggggtg tcccctacac 180
agtgtctggtg gacgaggagt cacagaggga gccaggggcc agtggggctc caggccagaa 240
aaagtgtctac agctgccccg tgtgtctcaag ggtcttcgag tacatgtcct accttcagcg 300
acacagcatc acccactcgg aggtaaagcc cttcgagtgt gacatctgtg ggaaggcatt 360
caagcgcgcc ancnaatttg cacggcacca ttccattcac ctggcgggtg gtgggaggcc 420
ccacggctgc ccgtctctgc ctcgncgttc cgggatgcgg gtgagctggc ccagcacagc 480
cgggtgcact ctgggggaacg cccgtttcag tgtcacactg cctcgccgtt tatggagaga 540
acacactgca gaaacacacg ggtggaagca tccatgagcg g 581
```

<210> 18
<211> 637
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1525569F6

<220>
<221> unsure
<222> 462, 485, 510, 514, 550, 562, 602, 617, 622, 625, 629, 636
<223> a, t, c, g, or other

```
<400> 18
cagtaatcag ccagtcctg cctttagacg acgccgtgct aggaagaaga ccgtttctgc 60
ttcagaatct gaagaccggc tagttgctga acaagaaact gaaccttcta aggagttgag 120
taaacgtcag ttcagtagtg gtctcaataa gtgtgttata cttgctttgg tgattgcaat 180
```

PF-0531 USN

```
cagcatggga tttggccatt tctatggcac aattcagatt cagaagcgtc aacagttagt 240
cagaaagata catgaagatg aattgaatga tatgaaggat tatctttccc agtgtcaaca 300
ggaacaagaa tcttttatag attataagtc attgaaagaa aatcttgcaa ggtgttggac 360
acttactgaa gcagagaaga tgtcctttga aactcagaaa acgaaccttg ctaccagaaa 420
atcagtattht aagagtatcc ttggagaagg aagaaaaagc cntatcctca ttaccaggga 480
agagntaaac aaacttaaga ggaccagttn gganattgga agataaaggg gacaagtact 540
gaattagttn aaggaaaatc cngaaacttt aagcagcctt tggaagaggg aaagccggaa 600
anacaccagc tttcctnagt cnaangggng accctnt 637
```

<210> 19
<211> 187
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1554775H1

<220>
<221> unsure
<222> 13, 19, 21
<223> a, t, c, g, or other

```
<400> 19
gggcggagtt gtnggagtnng nggaggaaga ggcggtaggg ggtacggggg ctggtcccag 60
aagatggcgg aggcggggga tttctggtag gtcctacttt aggacaagat gtggtaccgt 120
tgaagcgtca gtctttgatt cacagacagt tgagcttttc agctgggaag cctttccatt 180
ttttttt 187
```

<210> 20
<211> 499
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1596581F6

<220>
<221> unsure
<222> 406, 435
<223> a, t, c, g, or other

```
<400> 20
aaaaagcaga aactcctcct agaactggac cagtatgccc cagatgtggc cgaactcatc 60
cggaccacctt tggaaatgcg ttacatccct ttgaaagtgg ccctgttcta tctcttaaht 120
ccttacacga ttttgtcttg tgttgccaag tctacctgtg ccatcaacaa caccctcatt 180
gctttcttca ttttgactac gataaaaaggc agtgcttttc tcagtgtctat ttttcttgcc 240
ttagcgacat accagtctct gtaccacctc acctgttttg tcccaggact cctctatctc 300
ctccagcggc agtacataacc tgtgaaaatg aagagcaaag ctttctggat cttttcttgg 360
gagtatgcca tgatgtatgt gggaaagcta gtggtaatca tttgcntctc cttcttcctt 420
ctcagctctt ggganttcatt ccccgagtc taatggctta tactttctgt tccagatctc 480
atccaaacat tgggtcttt 499
```

PF-0531 USN

<210> 21
<211> 287
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1596581T1

<220>
<221> unsure
<222> 122, 144, 266, 273
<223> a, t, c, g, or other

<400> 21
ggcttggccc agcttctggc cccacagccc cctgaggtcc atgcagccct gtgccagcca 60
ggcctacttg agcacgagca tggcctctgt gccatccttg gcggtcaagt agaggccatg 120
tntgaggtag tactcccgcc gcangaaggc atagaagtaa tcagagatga gcaggatctg 180
cccaacggtg aagggtcagtg tgatggcata aaagaaatta gagttggcac ttcctgcata 240
aatccagagg tgccacagga caggggnagaa cangggacag acgattt 287

<210> 22
<211> 579
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 162871X4

<220>
<221> unsure
<222> 22, 25, 32, 106, 123, 126, 135, 208, 216, 219, 234, 236, 263, 271,
282, 287, 292, 358, 360, 363, 365, 379, 412, 441, 452, 459, 483, 485,
499-500
<223> a, t, c, g, or other

<400> 22
ctaaagaaga gcggtagggg gnccnggggc tngtcccaga aagtatggcg gaggcggggg 60
atttctggta ggtcctactt taggacaaga tgtggtaccg ttgaancgct agtctttgat 120
tcncanacag ttganctttt cagctgggaa gcctttccat tttttttttt aacggctttc 180
tgaacctatg aaacctatggc aaaagganaa acaaantcnc ctgggccc aaantntggc 240
ccatatattt catctgtcac tanccaaatt ntgaacttga tnattcnagg antattgcta 300
ttttttattg gagtatttct tgcattagt ttaaatttac ttcaaattca aaaaaatntn 360
acnncntttc cacctgatnt gattgcaagc atcttttctt ctgcatgctg tnattgggtt 420
attatacccc tgcattaaca nacatctagg anaaccacnt aaatttaaaa aaaagtggc 480
cantntaatg cgggtgtgnn cagtctttgt tggataaat catgccagtg ctaaagtgga 540
tttcgataac aacatacagt tgtctctcac actggcgca 579

<210> 23
<211> 250
<212> DNA
<213> Homo sapiens

PF-0531 USN

<220>

<221> misc_feature

<223> Incyte ID No: 162871X92

<220>

<221> unsure

<222> 8, 17, 24, 27, 33, 36, 43, 246

<223> a, t, c, g, or other

<400> 23

```
ggaaaggnc aagggaanggg gtanggnccg tgntcnaaga aantggcgga ggcgggggat 60
ttctgctgtg attgggttat tatacccctg cattgacaga catctaggag aaccacataa 120
atttaaaaga gagcgggtcca gtgtaatgcg gtgtgtagca gtctttgttg gtataaatca 180
tgccagtgc aaagtggatt tcgataacaa catacagttg tctctcacac tggctgcact 240
atcttnaaaa                                     250
```

<210> 24

<211> 250

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1658067H1

<220>

<221> unsure

<222> 8

<223> a, t, c, g, or other

<400> 24

```
cgacagtngg ggacgtggcg ctctacatgg ccttcttccc cgtgtggaac catctctaca 60
gattcctgag aaacatcttt gtcctcacct gcatcatcat cgtctgttcc ctgctcttcc 120
ctgtcctgtg gcacctctgg atttatgcag gaagtgccaa ctctaatttc ttttatgcca 180
tcacactgac cttcaacgtt gggcagatcc tgctcatctc tgattacttc tatgccttcc 240
tgcggcgggg                                     250
```

<210> 25

<211> 736

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1706512F6

<220>

<221> unsure

<222> 419, 435, 453, 462-463, 471, 476, 513, 516, 563, 585-586, 597, 611, 618, 652, 661, 680, 684-685, 692-693, 701, 714, 725, 731

<223> a, t, c, g, or other

<400> 25

```
atcagaagct cttcactgac tttgttaatg atgttaaaga ttatcttaga aacatgaagg 60
```


PF-0531 USN

```
aatatgaagt agataatgat ggagtatttg agaagttgga tgaatatata tatagacact 120
tctttgggtca cactttttcc cctccatatg gaccaggtc ggtttacata aaaccgtgtc 180
attacagtag tttgtaacat ttgtagattg gatagcattt ttatgatttg atgagtttct 240
tgtaagggtta ccgtttctaa gagttgtgct ttatgggcac tgagagaatt ccagaataaa 300
ttgaaagatg ggagtcctaa aaatttaatt agccggttac caaatgggga ccttttccat 360
tagtaacggt gattccacct ttggaccttt gaggccaaat gggtttaaat ttttttaanc 420
ccttaaaaaa atccnggttt aaaggaatta ttnttaaaga annccccacc nttttngggc 480
ccaaggtttt ggttttccct ttttccattt aanaanggtt ttaataatgg aaaaaaggat 540
tccacccttt aaaggtggga aantttaatt ttttccccct taaannccct ttttaanggg 600
aatttaaatt nccccctnct gggaagccca agggaatgga ggcccacccc cnaattttta 660
nccccggaag gtccggaagn ggcnnctat annaataatt nccaaaggtc cccncccaat 720
tttcnctggt ncccat 736
```

<210> 26

<211> 611

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1722946F6

<220>

<221> unsure

<222> 213, 223, 369, 406, 423, 469, 475, 490, 494, 498, 524, 548, 570, 574,
582, 584, 594, 597, 605, 607

<223> a, t, c, g, or other

<400> 26

```
attggcgccc gagctgtgac cgccgccact ggggcagcca gcacaatcgg gcggaggtgg 60
cgctgccccct tcagacctga aagatgtctg aaaattccag tgacagtgat tcattctgtg 120
gttggaactgt catcagtcac gaggggtcag atatagaaat gttgaattct gtgacccccca 180
ctgacagctg tgagcccgcc ccagaatgtt canctttaga gcnagaggag cttcaagcat 240
tgcagataga gcaaggagaa tgcagccaaa atggcacagt gcttatggaa gaaactgctt 300
atccagcttt ggaggaaacc agctcaacaa ttgaggcaga ggaacaaaag ataccggaag 360
acagtatcna tattggaact gccagtgggt attctgatat tggtanccct tgagccacta 420
agnntagaag gaattgggga tccaagaagt tgtcattgtt gaagaaagnc caagntccgg 480
agacttttan catngggntc ttcctctagc agccagtata cttntctgtt cagcccagaa 540
aactggantt tcattcttcag cctaatagac gtgnaatcaa gntngtgatg gaancngtt 600
attcngnccc c 611
```

<210> 27

<211> 592

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1853196F6

<220>

<221> unsure

<222> 94, 104, 149, 167, 215, 226, 232, 275, 298, 301, 312, 333, 362, 364,
367, 376, 391-392, 395, 412, 415, 419, 429, 435, 443, 449, 452, 462-464,

PF-0531 USN

466-468, 470, 476, 485, 489, 492, 502, 514, 529, 533, 541, 550, 557-558,
567, 572, 574, 577, 580

<223> a, t, c, g, or other

<400> 27

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ctttcagaaa ggcttggttct ggtgtatttg attgtgctca acaagagtcc atgagccttt 60
ttaacacagt ggtgaatcct ataaggatgg atgnatttag acanataatt caaaggtaca 120
tgttaaaaga actggatact ttttgtcant ggaacgaact tgatcanttc atcaataagt 180
ttttcctaaa cgtgtgtcttt atacatgatc agaantctct cactgncttt gntaatgatg 240
ttaaagatta tcttagaaac atgaaggata tgaantagat aatgatggag tatttgcnaa 300
nttggtatgga tntatatata gacacttctt tgntcacact ttttcccctc catatggggc 360
cngntcngtt tacatnaaac cgtgtcttac nntantttgt aacattttgta gntgnatanc 420
atttttaant ttgangagtt tcntgttaang tnacgggtcc annngnnntn ctttanagcc 480
accanagana antcggataa antgaaagta gggntccaaa attattaant gtnccaatag 540
nactttcctn ataaagnngt caccttngct tnanccnatn ggtttaattt tt 592
```

<210> 28

<211> 447

<212> DNA

<213> Homo.sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2238411F6

<400> 28

```
tttggggcacc agcctctgag ggcctcaaac caggccctga ggatggggccg ggcaaggagg 60
aagctccgga gctggacgag gccgaattgg actacctcat ggatgtgctg gtgggcacac 120
aggcactgga gcgaccgccg gggccagggc gctgagccct cgtgctggaa tggttgtctg 180
gtatctgaac tgagcctgct ggctggacca actgtcctcg aaaagacaca gctggcttcc 240
ctagtagaca gaacagggtc tgggccactt tggagagaca gaatctagtc ctgggcaact 300
tcacatccgt cctcctgtct cagggtctgc agggggagcc tgggaattacc ccctagtgat 360
ggaatgacag ggtctggtgg ggactgaatt ccctggccct ggggtcatag cttgggctgt 420
tccttctctg atacgggaag agacccc 447
```

<210> 29

<211> 247

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2312928H1

<220>

<221> unsure

<222> 234

<223> a, t, c, g, or other

<400> 29

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tgctgggtgg ggtgtgaca gtgcgggccc ccttgttccc ctccagtctg gccgagttca 60
tttccgagcg ggtggagggt gtgtccccac tgagctcttg gaagagagtg gttgaaggcc 120
tttactgtt ggacttggga gtatctccgt attctggagc agtatttcat gaaactccat 180
taataatata cctctttcat ttcctaattg actatgctga attgggtgtt atgntaactg 240
```

PF-0531 USN

atgcact

247

<210> 30

<211> 190

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3015795H1

<220>

<221> unsure

<222> 162-163

<223> a, t, c, g, or other

<400> 30

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acttcacatc cgctcctcctg tctcagggct ggcaggggga gcctggaatt accccctagt 60
gatggaatga caggggtctgg tggggactga attccctggc cctgggggtca tagcttgggc 120
tggtccttct ctgatacggg aagagacccc aatcagattt tnnaaattaa agccagtcct 180
gggaaatctc                                     190
```

<210> 31

<211> 253

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3231214H1

<220>

<221> unsure

<222> 121

<223> a, t, c, g, or other

<400> 31

```
gtttcagatc aacgtcttct tctacaccat ccccttagcc ataaagctaa aggagcacc 60
catcttcttc atgtttatcc agatcgctgt catcgccatc tttaagtcct acccgacagt 120
nggggacgtg gcgctctaca tggccttctt ccccggtgtg aaccatctct acagattcct 180
gagaaacatc tttgtcctca cctgcatcat catcgctctg tccttggtc ttcctgtcc 240
tgtggcacct ctg                                     253
```

<210> 32

<211> 273

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3985439H1

<220>

<221> unsure

PF-0531 USN

<222> 88

<223> a, t, c, g, or other

<400> 32.

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gtcttccttg cgtgtgcgtg cacgttgggt gctgggggggt ggagaccgga tctatcctcg 60
cttgggtact ttctctcgg tgtgtgntc tggccggagc cgtttcgcga cggccccggc 120
gccccgcccc aaccttcctt ccctagaccc tcttctctcc ctteggcttc tctctttcgg 180
ccggcgccgc cagttcctgg ggcacacca gaggtcccc tctcgccgc gcctgcaact 240
gcgagggtag cccggggccg cttggagtcg ccc 273
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<210> 33

<211> 618

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 403002R6

<220>

<221> unsure

<222> 190, 336, 351, 413, 420, 423, 432, 441, 449, 454, 462, 510, 520, 524, 530, 552, 555, 557, 560-561, 569, 574, 584-585, 594, 596, 611, 614

<223> a, t, c, g, or other

<400> 33

```
tgctggtgga cgaggagtca cagagggagc caggggccag tggggctcca ggccagaaaa 60
agtgtacag ctgccccgtg tgctcaagg tcttcgagta catgtcctac cttcagcgac 120
acagcatcac ccactcggag gtaaagccct tcgagtgtga catctgtggg aaggcattca 180
agcgcgccan ccacttggca cggcaccatt ccattcacct ggcggtggtt gggcgggccc 240
acggctgccc gctctgccct cgccgcttcc gggatgcggg tgagtggccc aagcacagcc 300
gggtgcactc tggggaacgc cgtttcagt gtcaanactg ccttcgccgg nttaaatgga 360
gcagaacaca attgcagaaa acaacaccgc ggttggaag catccattg aanccggggn 420
ttncggggtt tnccccaagg ntaccaaang gaanttttc anaggggaac cttgaaatt 480
ccctgttcca aaaaaacctt ggttaaaaan ccctaaaggn tggnttttn aggggccttg 540
gaaaaacagg ancanangn naggcggant ttnaaaggg aaannccctt gccnanaagg 600
gggaatcccg naantaat 618
```

<210> 34

<211> 297

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 510407R6

<400> 34

```
tgagtaatct tcaggctctc cgtgttcttg agctgagatg ggaatgagcc cctacacaga 60
atggagtctt ctagcctaaa gatatacagc gttccatggc agagccttga ctggatggag 120
gtggggagtg tgggtgtgtaa agtctctggc ctcataaaaag gtggctgtgg gtcgtcagga 180
atctgcgcca tcttctctggg gcttctgcgc tgttggtggg gaagggacct cagtcctgcc 240
ttccaccccc caaccaggcc tgagactgat caaacaataa acacgtttcc cactctg 297
```

PF-0531 USN

<210> 35

<211> 239

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3590729H1

<220>

<221> unsure

<222> 91

<223> a, t, c, g, or other

<400> 35

ggcgagtgct tgggcagaag aggttcgagt ccagggtcac aagtctctgg taccaaaagg 60
gacccatggc tgactgacag caaggcctat ngggaagaac tgggagctcc ccaacttgga 120
ccccacctt gtggctctgc acaccaagga gccccctccc agacaggaag gagaagaggc 180
aggtgagcag ggcttggttag attgtggcta cttaataaat gttttttggt atgaagtct 239